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45

STIC EIC 2100 Search Request Form

Today's Date: 7/13/04

What date would you like to use to limit the search?

Priority Date: 11/1/2000

Other:

Name Cam-Y Tung

AU 2172 Examiner # 78158

Room # 4Y18 Phone 303605-1169

Serial # 09/481 +66

Format for Search Results (Circle One):

PAPER DISK EMAIL

Where have you searched so far?

USP DWPI EPO JPO ACM IBM TDB

IEEE INSPEC SPI Other

Is this a "Fast & Focused" Search Request? (Circle One) YES NO

A "Fast & Focused" Search is completed in 2-3 hours (maximum). The search must be on a very specific topic and meet certain criteria. The criteria are posted in EIC2100 and on the EIC2100 NPL Web Page at <http://ptoweb/patents/stic/stic-tc2100.htm>.

What is the topic, novelty, motivation, utility, or other specific details defining the desired focus of this search? Please include the concepts, synonyms, keywords, acronyms, definitions, strategies, and anything else that helps to describe the topic. Please attach a copy of the abstract, background, brief summary, pertinent claims and any citations of relevant art you have found.

ATMs transactions, card, pin Relational database

STIC Searcher Terese Esterfeld

Phone 308-7795

Date picked up 7/14/04 1:15pm

Date Completed 7/14/04 4:00pm



| Set | Items | Description |
|-----|---------|--|
| S1 | 41625 | ATM OR ATMS OR AUTOMATIC()TELLER()MACHINE? OR SELF()SERVIC- E()MACHINE? OR SSM OR SSMS |
| S2 | 1572146 | GLOBAL OR UNIVERSAL OR ALL() (EMBRACING OR ENCOMPASSING) OR INCLUSIVE OR ENTIRE? OR ALL OR SINGLE |
| S3 | 3658121 | FIRST OR 1ST OR PRIME OR PRIMARY OR INITIAL OR MAIN OR ORI- GINAL |
| S4 | 2840789 | SECOND OR 2ND OR NEXT OR SUCCEEDING OR SUCCESSIVE OR FOLLO- WING OR SUBSEQUENT |
| S5 | 6808 | (OBJECT? OR RELATIONAL?) () (DATABASE? OR DATA()BASE?) OR OB- JECT()ORIENTED OR OO OR OOPL OR OODB OR RDBM OR RDB OR OOPLS - OR OODBS OR RDBMS |
| S6 | 111771 | DATA()WAREHOUSE OR DATABASE OR DATA()BASE OR KNOWLEDGE()BA- SE |
| S7 | 568101 | USER OR CLIENT? OR BUYER? OR CONSUMER OR CUSTOMER? OR PATR- ON? |
| S8 | 480132 | TRANSACTION? OR ACTIVIT? OR EXECUTION |
| S9 | 30138 | (SMART OR CHIP OR IC) ()CARD OR SMARTCARD OR ICCARD RO CHIP- CARD |
| S10 | 421678 | PIN OR PERSONAL()IDENTIFICATION()UMBER? OR SECURITY()CODE? OR ID OR IDENTIFIER? OR SECRET()NUMBER? OR (CONFIDENTIAL OR P- RIVATE) ()CODE? |
| S11 | 701 | S1 (3N) S8 |
| S12 | 731 | S1 (3N) S7 |
| S13 | 539 | S3 (3N) S1 |
| S14 | 381 | S4 (3N) S1 |
| S15 | 2 | S11 AND S12 AND S13 AND S14 |
| S16 | 0 | S12 AND S13 AND S6 |
| S17 | 528 | S1 AND S6 |
| S18 | 8 | S17 AND S5 |
| S19 | 5209 | (S8 OR S9 OR S10) AND S1 |
| S20 | 6 | S19 AND S5 |
| S21 | 609 | S19 AND S2 |
| S22 | 41 | S21 AND S6 |
| S23 | 52 | S15 OR S18 OR S20 OR S22 |
| S24 | 38 | S23 AND IC=G06F? |

File 347:JAPIO Nov 1976-2004/Mar(Updated 040708)
(c) 2004 JPO & JAPIO

File 350:Derwent WPIX 1963-2004/UD,UM &UP=200444
(c) 2004 Thomson Derwent

24/5/2 (Item 2 from file: 347)
DIALOG(R)File 347:JAPIO
(c) 2004 JPO & JAPIO. All rts. reserv.

06051060 **Image available**
FINANCIAL PROCESSING SYSTEM AND PROGRAM RECORDING MEDIUM FOR THE SAME

PUB. NO.: 10-334160 [JP 10334160 A]
PUBLISHED: December 18, 1998 (19981218)
INVENTOR(s): OKADA NORIHISA
APPLICANT(s): N T T DATA KK [000000] (A Japanese Company or Corporation),
JP (Japan)
APPL. NO.: 09-143948 [JP 97143948]
FILED: June 02, 1997 (19970602)
INTL CLASS: [6] G06F-019/00 ; G06F-015/00
JAPIO CLASS: 45.4 (INFORMATION PROCESSING -- Computer Applications)
JAPIO KEYWORD:R087 (PRECISION MACHINES -- Automatic Banking)

ABSTRACT

PROBLEM TO BE SOLVED: To provide the financial processing system which is immediately adaptive to changes of financial articles.

SOLUTION: Characters of respective financial articles are registered in an article **data base** 9 in the form of a set of constituent elements (a), (b), (c)... obtained by fractionizing them into **single** functions. Further, the contents of various interest patterns used for various articles are registered in an interest **data base** 11. The constituent elements characteristic of the individual financial articles are registered in an additional information **data base** 13. A **transaction** application program 15 when receiving a request to process a specific financial article from a terminal 1 or 3 or an **ATM (automatic teller machine)** 5 obtain the constituent elements of the corresponding article out of the data bases 9, 11, and 13, processes the article according to them, and sends the processing result back to the terminal 1 or 3 or **ATM** 5. When a new article is generated or an existent article is changed, additional registration to the data bases 9, 11, and 13 and the change of registration contents are performed from the terminal 1 without modifying the **transaction** application 15.

24/5/3 (Item 3 from file: 347)
DIALOG(R)File 347:JAPIO
(c) 2004 JPO & JAPIO. All rts. reserv.

05957916 **Image available**
TRANSACTION CONTINUATION PROCESSING METHOD AGAINST MONEY DISPENSING
TRANSACTION FAULT IN AUTOMATIC TELLER MACHINE

PUB. NO.: 10-241016 [JP 10241016 A]
PUBLISHED: September 11, 1998 (19980911)
INVENTOR(s): YUGUCHI MITSUO
APPLICANT(s): OKI ELECTRIC IND CO LTD [000029] (A Japanese Company or Corporation), JP (Japan)
APPL. NO.: 09-048109 [JP 9748109]
FILED: March 03, 1997 (19970303)
INTL CLASS: [6] G07D-009/00; G06F-019/00
JAPIO CLASS: 29.4 (PRECISION INSTRUMENTS -- Business Machines); 45.4 (INFORMATION PROCESSING -- Computer Applications)
JAPIO KEYWORD:R087 (PRECISION MACHINES -- Automatic Banking)

ABSTRACT

PROBLEM TO BE SOLVED: To secure a method to automatically give the payment cash to a user, even when a money dispensing transaction fault occurs and to improve the serviceness at the ATM(automatic teller machine) faults.

SOLUTION: In the case that a money dispensing transaction fault is generated at a **1st ATM** 3 and the **transaction** is discontinued, the **1st ATM** 3 transmits the fault and the transaction data to a monitoring

terminal 2. When the transaction data of the 1st ATM 3 are transmitted to a 2nd ATM 4 from the terminal 2, the ATM 4 executes the himself confirmation processing of a user. When the ATM 4 confirms the user being the himself concerned in the money dispensing transaction, the transaction is carried out according to the transaction data which are received from the terminal 2.

24/5/4 (Item 4 from file: 347)
DIALOG(R) File 347:JAPIO
(c) 2004 JPO & JAPIO. All rts. reserv.

04889832 **Image available**

TRANSACTION CONTROL METHOD FOR AUTOMATIC TELLER MACHINE

PUB. NO.: 07-182432 [JP 7182432 A]
PUBLISHED: July 21, 1995 (19950721)
INVENTOR(s): SATO JUNKO
APPLICANT(s): HITACHI LTD [000510] (A Japanese Company or Corporation), JP
(Japan)
APPL. NO.: 05-327104 [JP 93327104]
FILED: December 24, 1993 (19931224)
INTL CLASS: [6] G06F-019/00 ; G07D-009/00
JAPIO CLASS: 45.4 (INFORMATION PROCESSING -- Computer Applications); 29.4
(PRECISION INSTRUMENTS -- Business Machines)
JAPIO KEYWORD: R087 (PRECISION MACHINES -- Automatic Banking)

ABSTRACT

PURPOSE: To abolish even a bankbook of a booklet type by deciding whether the collation of unregistered data is necessary or not and clearing the unregistered data stored in a data base of a host computer when the registration of data is not needed to the bankbook after the end of a transaction.

CONSTITUTION: In a transaction control method for an automatic teller machine ATM which has a function to perform the collation of unregistered data regardless of a fact whether they are registered in a bankbook or not, the collation of unregistered transactions is selected. Then when a transaction collation is necessary, a transaction collation telegram is transmitted and received to and from a center. The center edits the registered data to send them to the ATM, and a user receives a detailed statement and decides whether registration is needed later through a selecting screen for necessity or not of registration. When the later registration is not needed, a fact that the registration is already finished is sent to the center. Receiving this fact, the center updates a data file into a registered state. Furthermore, plural transactions are printed on a single detailed slip when such transactions as the payment, the deposit, the transfer, etc., are continuously carried out.

24/5/5 (Item 5 from file: 347)
DIALOG(R) File 347:JAPIO
(c) 2004 JPO & JAPIO. All rts. reserv.

02529261 **Image available**

AUTOMATIC TRANSACTION PROCESSING SYSTEM

PUB. NO.: 63-146161 [JP 63146161 A]
PUBLISHED: June 18, 1988 (19880618)
INVENTOR(s): ODA FUMIO
APPLICANT(s): OMRON TATEISI ELECTRONICS CO [000294] (A Japanese Company or Corporation), JP (Japan)
APPL. NO.: 61-294225 [JP 86294225]
FILED: December 10, 1986 (19861210)
INTL CLASS: [4] G06F-015/21 ; G06F-015/21 ; G06F-015/30
JAPIO CLASS: 45.4 (INFORMATION PROCESSING -- Computer Applications)
JAPIO KEYWORD: R087 (PRECISION MACHINES -- Automatic Banking)

ABSTRACT

PURPOSE: To guide a real estate object also by retrieving real-estate object information meeting a real estate object condition and a **transaction** condition from the **data base** of a center to display them on an automatic **transaction** processor (**ATM**) when a user inputs the real-estate object condition from the **ATM** .

CONSTITUTION: When the real-estate **transaction** mode is set by the **transaction** request from a customer, region codes or the like are displayed on a CRT display part 6 to wait for input of customer's region code. After **all** data are inputted, inputted data are transmitted to a center 27 through a transmission controller 26, and the center 27 retrieves real-estate object information and the **transaction** condition corresponding to these data, and retrieval results are received by the **ATM** through the transmission control part 26. When retrieval results are received, the presence or the absence of real-estate object information and the **transaction** condition corresponding to inputted data is decided, and real-estate object information and the **transaction** condition are displayed on the CRT display part 6 in case of the presence. Thus both of payment/ depositing and the guide to real estates are possible with one **ATM** .

24/5/10 (Item 5 from file: 350)

DIALOG(R)File 350:Derwent WPIX

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015522289 **Image available**

WPI Acc No: 2003-584436/200385

XRPX Acc No: N03-465151

Alternate network connectivity determination method in synchronous optical network, involves detecting whether client layer resource is affected by network topology change

Patent Assignee: NORTEL NETWORKS LTD (NELE)

Inventor: UNIACKE M

Number of Countries: 001 Number of Patents: 001

Patent Family:

| Patent No | Kind | Date | Applicat No | Kind | Date | Week |
|------------|------|----------|-------------|------|----------|----------|
| US 6564258 | B1 | 20030513 | US 98193094 | A | 19981116 | 200355 B |

Priority Applications (No Type Date): GB 9821150 A 19980930

Patent Details:

| Patent No | Kind | Lan Pg | Main IPC | Filing Notes |
|------------|------|--------|--------------|--------------|
| US 6564258 | B1 | 24 | G06F-015/173 | |

Abstract (Basic): US 6564258 B1

NOVELTY - The instances representing trail stored in an **object database** are modified, when a server layer resource is re-configured by a change in network topology. A client layer resource affected by change to server layer resource is detected and an alternate network connectivity for the detected client layer resource is determined.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the following:

- (1) method of managing a communication network;
- (2) network management apparatus; and
- (3) computerized method of re-routing a client trail supported by a server trail.

USE - For determining alternate network connectivity for a client layer resource of network affected by network topology change at a server layer of communication networks including synchronous optical network (SONET), asynchronous transfer mode (**ATM**) network, synchronous digital hierarchy (SDH), internet protocol and frame relay.

ADVANTAGE - Enables quicker reconfiguration of network after

optimum performance to operate or inter-operate desktop, hand-held or embedded system applications particularly in a distributed client-server computing environment. Provides internal formatting and smart memory allocation for scalable performance. Provides architectural properties to directly support hardware kernel protocol functions for client-server based operating system, session control and remote communication and to support OSI, TCP/IP, ATM, ISDN or other mechanically equivalent communication protocols and NETBIOS, LAN manager, network, VINE or other mechanically equivalent network operating systems and session control protocols. Provides architectural properties to query, retrieve, interpret document script and to compile and produce high level language procedural modules conforming to run-time user/application and network's subject of interest. Provides procedure look-ahead and bit map pointer stack techniques to maintain pipeline coherence and apply group fetch, superscalar and superpipeline to further enhance system performance.

DESCRIPTION OF DRAWING(S) - The figure shows the document instruction set computing (DISC) environment.

pp; 24 DwgNo 1/4

Title Terms: DOCUMENT; SERVE; SYSTEM; DISTRIBUTE; COMMUNICATE; ENVIRONMENT;

ENCODE; CONVERT; SEGMENT; INFORMATION; ACCORD; FORMAT; DIRECT; USER

Derwent Class: T01; W01

International Patent Class (Main): G06F-017/21

File Segment: EPI

24/5/21 (Item 16 from file: 350)

DIALOG(R) File 350:Derwent WPIX

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014137810 **Image available**

WPI Acc No: 2001-622021/200172

XRPX Acc No: N01-464344

Output file loading method for relational database management system, involves assigning unique integer value to individual transaction record in plain text output file

Patent Assignee: CITICORP DEV CENT INC (CITI-N); BARKUS A (BARK-I);

CAROTHERS K (CARO-I); KHILKEVICH S (KHIL-I); PLAKOS B (PLAK-I)

Inventor: BARKUS A; CAROTHERS K; KHILKEVICH S; PLAKOS B; KHILKEVICH S

Number of Countries: 028 Number of Patents: 003

Patent Family:

| Patent No | Kind | Date | Applicat No | Kind | Date | Week |
|----------------|------|----------|---------------|------|----------|----------|
| JP 2001250025 | A | 20010914 | JP 2000379458 | A | 20001213 | 200172 B |
| EP 1143362 | A2 | 20011010 | EP 2000204438 | A | 20001212 | 200208 |
| US 20020016771 | A1 | 20020207 | US 99170658 | P | 19991214 | 200213 |
| | | | US 2000736760 | A | 20001213 | |

Priority Applications (No Type Date): US 99170658 P 19991214; US 2000736760 A 20001213

Patent Details:

| Patent No | Kind | Lan | Pg | Main IPC | Filing Notes |
|-----------|------|-----|----|----------|--------------|
|-----------|------|-----|----|----------|--------------|

| | | | | | |
|---------------|---|--|----|-------------|--|
| JP 2001250025 | A | | 87 | G06F-017/60 | |
|---------------|---|--|----|-------------|--|

| | | | | | |
|------------|----|---|--|-------------|--|
| EP 1143362 | A2 | E | | G06F-017/60 | |
|------------|----|---|--|-------------|--|

Designated States (Regional): AL AT BE CH CY DE DK ES FI FR GB GR IE IT

LI LT LU LV MC MK NL PT RO SE SI TR

| | | | | | |
|----------------|----|--|--|-------------|-------------------------------------|
| US 20020016771 | A1 | | | G06F-017/60 | Provisional application US 99170658 |
|----------------|----|--|--|-------------|-------------------------------------|

Abstract (Basic): JP 2001250025 A

NOVELTY - Sequentially written **transaction** data are retrieved from a **database** and are converted into plain text format. An unique integer value is assigned to an individual **transaction** record in the plain text output file.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the following:

(a) Financial **transaction** information management system;

(b) Financial **transaction** information management method

USE - For loading output file to **relational database** management

system for **ATM** , banking system in financial institution such as bank.

ADVANTAGE - Enables generating various information containing standard report on an advanced management information system.

DESCRIPTION OF DRAWING(S) - The figure shows the schematic drawing explaining the flow of information between basic components. (Drawing includes non-English language text).

pp; 87 DwgNo 1/25

Title Terms: OUTPUT; FILE; LOAD; METHOD; RELATED; **DATABASE** ; MANAGEMENT; SYSTEM; ASSIGN; UNIQUE; INTEGER; VALUE; INDIVIDUAL; **TRANSACTION** ; RECORD ; PLAIN; TEXT; OUTPUT; FILE

Derwent Class: T01

International Patent Class (Main): **G06F-017/60**

International Patent Class (Additional): **G06F-017/30**

File Segment: EPI

24/5/22 (Item 17 from file: 350)

DIALOG(R)File 350:Derwent WPIX

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014131363 **Image available**

WPI Acc No: 2001-615574/200171

Related WPI Acc No: 2000-256051

XRPX Acc No: N01-459147

Financial transaction processing method for card activated terminal devices such as automated teller machines (ATM), transforms incoming and outgoing messages according to message identifier value and field position data

Patent Assignee: DIEBOLD INC (DIEB-N)

Inventor: GILL R B; SINGER I; ST GEORGE P; SYMONDS R D

Number of Countries: 001 Number of Patents: 001

Patent Family:

| Patent No | Kind | Date | Applicat No | Kind | Date | Week |
|------------|------|----------|---------------|------|----------|----------|
| US 6302326 | B1 | 20011016 | US 9619544 | P | 19960610 | 200171 B |
| | | | US 9621871 | P | 19960717 | |
| | | | US 9625266 | P | 19960917 | |
| | | | US 97813510 | A | 19970307 | |
| | | | US 2000483104 | A | 20000114 | |

Priority Applications (No Type Date): US 2000483104 A 20000114; US 9619544 P 19960610; US 9621871 P 19960717; US 9625266 P 19960917; US 97813510 A 19970307

Patent Details:

| Patent No | Kind | Lan | Pg | Main IPC | Filing Notes |
|------------|------|-----|----|-------------|------------------------------------|
| US 6302326 | B1 | | 50 | G06F-017/60 | Provisional application US 9619544 |
| | | | | | Provisional application US 9621871 |
| | | | | | Provisional application US 9625266 |
| | | | | | Div ex application US 97813510 |
| | | | | | Div ex patent US 6039245 |

Abstract (Basic): US 6302326 B1

NOVELTY - System includes a **relational database** giving details of the message formats use by the external devices. A Message Gateway Router (MGR) uses the **database** to convert incoming messages into its own format. Message Processing Programs (MPPs) process the message either sending it to a location within the system or exporting it in the correct format for an external device.

DETAILED DESCRIPTION - An **INDEPENDENT CLAIM** is included for a computer readable medium containing instructions for carried out method.

USE - Processing financial **transactions** between credit, debit or store card activated terminals such as **ATM** or POS machines and authorization networks.

ADVANTAGE - Fast and reliable method for communication between a number of **transaction** processing systems including authorization and terminal devices using messages in a variety of formats. Can be adapted

to run on a variety of computer software and hardware and can be adapted to communicate with other types of systems.

DESCRIPTION OF DRAWING(S) - The drawing is a schematic view of the invention

system (10)
terminal devices (12)
POS terminal (14)
ATM machine (16)
authorization system (18)
pp; 50 DwgNo 1/30

Title Terms: FINANCIAL; **TRANSACTION** ; PROCESS; METHOD; CARD; ACTIVATE;
TERMINAL; DEVICE; AUTOMATIC; TELLER; MACHINE; **ATM** ; TRANSFORM; INCOMING;
OUTGOING; MESSAGE; ACCORD; MESSAGE; IDENTIFY; VALUE; FIELD; POSITION;
DATA
Derwent Class: T01; T05
International Patent Class (Main): **G06F-017/60**
File Segment: EPI

24/5/23 (Item 18 from file: 350)
DIALOG(R)File 350:Derwent WPIX
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013915779 **Image available**
WPI Acc No: 2001-399992/200143
Related WPI Acc No: 1997-228815
XRPX Acc No: N01-294889

Configuring self-service financial transaction on global communications network having number of nodes interconnected with communication lines has receiving and implementing financial request from customer to complete financial offering

Patent Assignee: CITICORP DEV CENT INC (CITI-N)
Inventor: BRYANT N; GRANDCOLAS M L; PAREKH D J; SCHECHTMAN H A
Number of Countries: 025 Number of Patents: 001
Patent Family:

| Patent No | Kind | Date | Applicat No | Kind | Date | Week |
|------------|------|----------|---------------|------|----------|----------|
| EP 1107149 | A2 | 20010613 | EP 2000203324 | A | 20000927 | 200143 B |

Priority Applications (No Type Date): US 99169982 P 19991210
Patent Details:

| Patent No | Kind | Lan | Pg | Main IPC | Filing Notes |
|------------|------|-----|----|-------------|--------------|
| EP 1107149 | A2 | E | 56 | G06F-017/60 | |

Designated States (Regional): AL AT BE CH CY DE DK ES FI FR GB GR IE IT
LI LT LU LV MC MK NL PT RO SE SI

Abstract (Basic): EP 1107149 A2

NOVELTY - Receiving a session request from a customer using an interactive interface (41) to access a self-service financial **transaction** ; selectively associating the session request with customer parameters to display a standardized customer-specific interactive interface to provide the customer with financial offerings; and receiving and implementing a financial request from the customer to complete the financial offering.

DETAILED DESCRIPTION - Updating the customer parameters in the **global** communications network upon completion of the financial offering associated with the financial request. The customer parameters include one or more of the following: account parameters, configuration parameters, communication parameters, session parameters, business parameters, regulatory parameters, real-time currency parameters, delivery parameters, service parameters, and financial offering parameters. The financial offerings are associated with a financial package which includes one or more of the following: inquiry, overview, balance, disposition, history, transfer, bill payment, credit **transaction** , maintenance and service functions, withdrawal, deposit, **PIN** change, investment, and end session .The self-service financial **transaction** device communicates with a rule broker component of the **global** communications network, the rule broker component registers a

rule authority which queries a **database** of business rules and returns a business rule, associated with one of the customer parameters or the financial package. The self-service financial **transaction** device is an **ATM** terminal, home banking terminal, personal computer, screen telephone, personal data assistant, and/or interactive television.

An INDEPENDENT CLAIM is also included for A platform-independent system for configuring a self-service financial **transaction** device.

USE - Delivering financial services to a number of different devices.

ADVANTAGE - Provides a common application base for **all** remote devices, a set of re-usable components that can be easily modified or expanded to fit the needs of a particular environment, easily maintain state of the art user interfaces, reduces development and maintenance cycle time, capable of supporting existing remote devices having legacy applications, and configuring common application base that enables a financial institution to make a globally consistent offering for **all** customers whether at home or travelling.

DESCRIPTION OF DRAWING(S) - The figure shows a block diagram of the delivery system.

Interface (41)

pp; 56 DwgNo 2/15

Title Terms: SELF; SERVICE; FINANCIAL; **TRANSACTION** ; GLOBE; COMMUNICATE; NETWORK; NUMBER; NODE; INTERCONNECT; COMMUNICATE; LINE; RECEIVE;

IMPLEMENT; FINANCIAL; REQUEST; CUSTOMER; COMPLETE; FINANCIAL; OFFER

Derwent Class: T01; T05; W01

International Patent Class (Main): **G06F-017/60**

File Segment: EPI

24/5/24 (Item 19 from file: 350)

DIALOG(R)File 350:Derwent WPIX

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013773176 **Image available**

WPI Acc No: 2001-257387/200126

Related WPI Acc No: 2002-130486

XRPX Acc No: N01-183614

Securing data transfer over a telecommunication medium involves using validating unit connected to terminal to ensure if person performing transaction is authorized to undertake transaction

Patent Assignee: SECURECOM LTD (SECU-N)

Inventor: TAYLOR B J

Number of Countries: 094 Number of Patents: 002

Patent Family:

| Patent No | Kind | Date | Applicat No | Kind | Date | Week |
|--------------|------|----------|--------------|------|----------|----------|
| WO 200108055 | A1 | 20010201 | WO 2000AU880 | A | 20000721 | 200126 B |
| AU 200059542 | A | 20010213 | AU 200059542 | A | 20000721 | 200128 |

Priority Applications (No Type Date): AU 20007029 A 20000420; AU 991786 A 19990723

Patent Details:

| Patent No | Kind | Lan | Pg | Main IPC | Filing Notes |
|-----------|------|-----|----|----------|--------------|
|-----------|------|-----|----|----------|--------------|

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|--------------|----|---|----|-------------|--|
| WO 200108055 | A1 | E | 21 | G06F-017/60 | |
|--------------|----|---|----|-------------|--|

Designated States (National): AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CR CU CZ DE DK DM DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW

Designated States (Regional): AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ NL OA PT SD SE SL SZ TZ UG ZW

| | | | | | |
|--------------|---|--|--|-------------|------------------------------|
| AU 200059542 | A | | | G06F-017/60 | Based on patent WO 200108055 |
|--------------|---|--|--|-------------|------------------------------|

Abstract (Basic): WO 200108055 A1

NOVELTY - The method involves using a terminal (5) to transmit data from a person performing the **transaction** to a party requiring data verification before the **transaction** can be undertaken. A validating unit e.g. fingerprint reader (3) is connected to the terminal to ensure that the person performing the **transaction** is authorized to undertake

the **transaction** .

DETAILED DESCRIPTION - An **INDEPENDENT CLAIM** is also included for the terminal used in securing data transfer over a telecommunication medium.

USE - For securing **transactions** e.g. product purchase, cash withdrawals, over a telecommunication medium e.g. TV system, Internet, Electronic Funds Transfer at Point of Sale (EFTPOS) system.

ADVANTAGE - Suitable for point of sale purchasing of products or services in **all** markets. Uses self-contained or stand-alone terminal in cooperation with a palm top, laptop or desktop computer or any unit which includes visual display unit. Can utilize any convenient telecommunication network or combination of cellular, satellite, microwave or hard wire telephone or other communication network. Can be attached to existing **automatic teller machines** to increase security in cash withdrawals. Authenticates proposed financial **transaction** without accessing a remote **database** , in which authentication can be performed quickly. Eliminates fraudulent use of credit or debit card.

DESCRIPTION OF DRAWING(S) - The figure shows a simple representation of the data transfer securing method over a telecommunication medium.

Fingerprint reader (3)

Terminal (5)

pp; 21 DwgNo 1/2

Title Terms: SECURE; DATA; TRANSFER; TELECOMMUNICATION; MEDIUM; VALID; UNIT ; CONNECT; TERMINAL; ENSURE; PERSON; PERFORMANCE; **TRANSACTION** ;

TRANSACTION

Derwent Class: S05; T04; T05

International Patent Class (Main): **G06F-017/60**

International Patent Class (Additional): G06K-009/00; G06K-019/07; G07F-019/00

File Segment: EPI

24/5/25 (Item 20 from file: 350)

DIALOG(R)File 350:Derwent WPIX

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013501968 **Image available**

WPI Acc No: 2000-673909/200066

XRPX Acc No: N00-499591

Network interconnecting self - service machines (SSMs) each of which executes relational database management system that maintains relational database stored on SSM , for use in data warehouse applications

Patent Assignee: NCR INT INC (NATC)

Inventor: TRAMONTANO R J

Number of Countries: 025 Number of Patents: 001

Patent Family:

| Patent No | Kind | Date | Applicat No | Kind | Date | Week |
|------------|------|----------|---------------|------|----------|----------|
| EP 1022665 | A2 | 20000726 | EP 2000300347 | A | 20000119 | 200066 B |

Priority Applications (No Type Date): GB 991005 A 19990119

Patent Details:

| Patent No | Kind | Lan | Pg | Main IPC | Filing Notes |
|------------|------|-----|----|-------------|--------------|
| EP 1022665 | A2 | E | 9 | G06F-017/30 | |

Designated States (Regional): AL AT BE CH CY DE DK ES FI FR GB GR IE IT

LI LT LU LV MC MK NL PT RO SE SI

Abstract (Basic): EP 1022665 A2

NOVELTY - The network interconnects a number of **self - service machines** , each of which executes a **relational database management system (RDBMS)** that maintains a **relational database** stored on the **self - service machine** .

DETAILED DESCRIPTION - The network includes interconnected **self - service machines (SSMs)** each of which executes a **relational database management system (RDBMS)** that maintains a **relational database** stored on the **SSM** . The **relational databases** are

partitions of a global **relational database** , and each partition stores information for only those customers that frequent the **SSM** that executes the **RDBMS** . The **relational databases** are used to effectively serve the customer at the **SSM** and to market products and services to the customer at the **SSM** . INDEPENDENT CLAIMS are included for; a method of processing information in a network comprising of **self - service machines** ; a **relational database management system** .

USE - Network of interconnected automated teller machines (**SSMs**), each of which executes a **relational database management system** that maintains a **relational database** stored on the **SSMs** , for use in **data warehouse** applications for networks of **self - service machines** .

DESCRIPTION OF DRAWING(S) - The drawing shows hardware that could be used to implement the invention.

pp; 9 DwgNo 2/4

Title Terms: NETWORK; INTERCONNECT; SELF; SERVICE; MACHINE; EXECUTE; RELATED; **DATABASE** ; MANAGEMENT; SYSTEM; MAINTAIN; RELATED; **DATABASE** ; STORAGE; DATA; WAREHOUSE; APPLY

Derwent Class: T01; T05

International Patent Class (Main): **G06F-017/30**

File Segment: EPI

24/5/26 (Item 21 from file: 350)

DIALOG(R)File 350:Derwent WPIX

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013084179 **Image available**

WPI Acc No: 2000-256051/200022

Related WPI Acc No: 2001-615574

XRPX Acc No: N00-190380

Financial transaction processing system for card activated terminal devices, transforms incoming and outgoing messages according to message identifier value and field position data

Patent Assignee: DIEBOLD INC (DIEB-N)

Inventor: GILL R B; SINGER I; ST GEORGE P; SYMONDS R D

Number of Countries: 001 Number of Patents: 001

Patent Family:

| Patent No | Kind | Date | Applicat No | Kind | Date | Week |
|------------|------|----------|-------------|------|----------|----------|
| US 6039245 | A | 20000321 | US 9619544 | A | 19960610 | 200022 B |
| | | | US 9621871 | A | 19960717 | |
| | | | US 9625266 | A | 19960917 | |
| | | | US 97813510 | A | 19970307 | |

Priority Applications (No Type Date): US 97813510 A 19970307; US 9619544 P 19960610; US 9621871 P 19960717; US 9625266 P 19960917

Patent Details:

| Patent No | Kind | Lan | Pg | Main IPC | Filing Notes |
|------------|------|-----|----|-------------|------------------------------------|
| US 6039245 | A | | 54 | G06F-017/60 | Provisional application US 9619544 |
| | | | | | Provisional application US 9621871 |
| | | | | | Provisional application US 9625266 |

Abstract (Basic): US 6039245 A

NOVELTY - A computer transforms an incoming message from one of several message sending external devices from external format to an internal message format. Similarly, outgoing message to one of several message receiving external devices is transformed from internal message format to external format. Messages are transformed according to message **identifier** value and field position data associated with each message.

DETAILED DESCRIPTION - Each external device is operated in connection with the computer to send or receive at least one message comprising of fields. A **database** which is operated in connection with the computer includes data representative of each of several external devices and an associated external format used to send or to receive messages from each external device. The **transaction processing system**

(10) comprises information concerning transformation of messages between at least one internal message format and several external message formats. The information includes a message **identifier** value, message type, message format and message field positions associated with message **identifier** value. The computer includes message gateway router (MGR) (24,25) functions that are operated to selectively convert messages between several external formats and **single** internal format. An INDEPENDENT CLAIM is also included for financial **transaction** processing method.

USE - For credit card, debit card, cash card activated terminal devices such as automated teller machine (**ATM**), point-of-sale (POS) terminals.

ADVANTAGE - The **transaction** processing system operates using uniform systematic processes for handling incoming and outgoing messages. This enables repeated reuse of the stored system information for converting between message formats and for carrying out **transaction** processing. The amount of effort required to add features and functions to the system is reduced. The need for extensive custom developments is minimized.

DESCRIPTION OF DRAWING(S) - The figure shows the schematic view of the network topography of financial **transaction** processing system.

Transaction processing system (10)

MGR (24,25)

pp; 54 DwgNo 1/30

Title Terms: FINANCIAL; **TRANSACTION** ; PROCESS; SYSTEM; CARD; ACTIVATE; TERMINAL; DEVICE; TRANSFORM; INCOMING; OUTGOING; MESSAGE; ACCORD; MESSAGE ; IDENTIFY; VALUE; FIELD; POSITION; DATA

Derwent Class: T01; T05

International Patent Class (Main): **G06F-017/60**

File Segment: EPI

24/5/27 (Item 22 from file: 350)

DIALOG(R) File 350:Derwent WPIX

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012944958 **Image available**

WPI Acc No: 2000-116811/200010

XRPX Acc No: N00-088427

Access control management system in computer

Patent Assignee: OZ INTERACTIVE INC (OZIN-N); KEY-TRAK INC (KEYT-N)

Inventor: MALONEY W C; PORKESSON H H

Number of Countries: 022 Number of Patents: 005

Patent Family:

| Patent No | Kind | Date | Applicat No | Kind | Date | Week |
|----------------|------|----------|---------------|------|----------|----------|
| WO 9966429 | A1 | 19991223 | WO 99US13829 | A | 19990618 | 200010 B |
| AU 9946958 | A | 20000105 | AU 9946958 | A | 19990618 | 200024 |
| US 20010004235 | A1 | 20010621 | US 9899954 | A | 19980911 | 200137 |
| | | | US 99392175 | A | 19990909 | |
| | | | US 2001782070 | A | 20010212 | |
| US 20010006368 | A1 | 20010705 | US 9899954 | A | 19980911 | 200139 |
| | | | US 99393223 | A | 19990909 | |
| | | | US 2001797338 | A | 20010301 | |
| US 20010009397 | A1 | 20010726 | US 9899954 | A | 19980911 | 200146 |
| | | | US 99393225 | A | 19990909 | |
| | | | US 2001792987 | A | 20010226 | |

Priority Applications (No Type Date): US 9899954 A 19980619; US 9899954 P 19980911; US 99392175 A 19990909; US 2001782070 A 20010212; US 99393223 A 19990909; US 2001797338 A 20010301; US 99393225 A 19990909; US 2001792987 A 20010226

Patent Details:

| Patent No | Kind | Lan | Pg | Main IPC | Filing Notes |
|-----------|------|-----|----|----------|--------------|
|-----------|------|-----|----|----------|--------------|

| | | | | | |
|------------|----|---|----|-------------|--|
| WO 9966429 | A1 | E | 24 | G06F-017/30 | |
|------------|----|---|----|-------------|--|

Designated States (National): AU CA JP

Designated States (Regional): AT BE CH CY DE DK ES FI FR GB GR IE IT LU

MC NL PT SE

| | | | | | |
|------------|---|--|--|-------------|----------------------------|
| AU 9946958 | A | | | G06F-017/30 | Based on patent WO 9966429 |
|------------|---|--|--|-------------|----------------------------|

US 20010004235 A1 G08B-013/14 Provisional application US 9899954
 Cont of application US 99392175
 US 20010006368 A1 G08B-013/14 Provisional application US 9899954
 Cont of application US 99393223
 Cont of patent US 6204764
 US 20010009397 A1 H04Q-001/00 Provisional application US 9899954
 Cont of application US 99393225
 Cont of patent US 6195005

Abstract (Basic): WO 9966429 A1

NOVELTY - Various partitionable databases are distributed in multiple servers in hierarchical manner. Each client access the **database**, by connecting with respective top level sensors. The access is controlled such that **database** is accessed irrespective of access condition of other client.

DETAILED DESCRIPTION - The link between the databases is established based on the key values stored in respective **relational database**. Network modifications are forwarded to the **database** via a distributed access control system and authenticated by servers. **Database** is forwarded through distributed atomic **transaction** interface. The **database** are distributed in hierarchical real time manner.

USE - For **database** distribution management in computer network and for **ATM** network, LAN, internet.

ADVANTAGE - Provision of hierarchical distributed **database**, results in simultaneous access by multiple users resulting in low access time.

DESCRIPTION OF DRAWING(S) - The figure shows the representation of a key value pair in a **relational database**.

pp; 24 DwgNo 2/8

Title Terms: ACCESS; CONTROL; MANAGEMENT; SYSTEM; COMPUTER

Derwent Class: T01

International Patent Class (Main): G06F-017/30 ; G08B-013/14; H04Q-001/00

File Segment: EPI

24/5/28 (Item 23 from file: 350)

DIALOG(R) File 350:Derwent WPIX

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012890012 **Image available**

WPI Acc No: 2000-061846/200005

SRPX Acc No: N00-048524

Transaction **managing method in distributed database system**

Patent Assignee: LUCENT TECHNOLOGIES INC (LUCE)

Inventor: BREITBART Y; KORTH H F; SILBERSCHATZ A

Number of Countries: 001 Number of Patents: 001

Patent Family:

| Patent No | Kind | Date | Applicat No | Kind | Date | Week |
|------------|------|----------|-------------|------|----------|----------|
| US 5999931 | A | 19991207 | US 97953571 | A | 19971017 | 200005 B |

Priority Applications (No Type Date): US 97953571 A 19971017

Patent Details:

Patent No Kind Lan Pg Main IPC Filing Notes

US 5999931 A 19 G06F-017/30

Abstract (Basic): US 5999931 A

NOVELTY - Representation of relationships between **transactions** and set of data items, is maintained. **Transaction** (Ti) is permitted to enter a complete state, even if it has not finished updating **all** replicated data items associated with it. **Transaction** and data items associated with it are removed from the representation, when enters completed state, such that consistency is maintained among replicated data items.

DETAILED DESCRIPTION - An INDEPENDENT CLAIM is also included for apparatus for storing several data items and controlling access to data items in distributed **database** system.

USE - For managing access and updates to replicated data items at physical sites such as data warehouses or data marts, or remote customer sites such as **automatic teller machine**, desk top personal computers.

ADVANTAGE - The broad definition of completed state significantly extends the class of globally serial able schedules which can be generated, and improves **transaction** throughput. Achieves substantially reduced communication throughput and since the static **global** serial able (SGS) protocol applies Thomas write rule (TWR).

DESCRIPTION OF DRAWING(S) - The figure shows the flow diagram illustrating SGS protocol used in **database** system.

pp; 19 DwgNo 3/4

Title Terms: **TRANSACTION**; **MANAGE**; **METHOD**; **DISTRIBUTE**; **DATABASE**; **SYSTEM**

Derwent Class: T01

International Patent Class (Main): **G06F-017/30**

File Segment: EPI

24/5/29 (Item 24 from file: 350)

DIALOG(R)File 350:Derwent WPIX

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012727906 **Image available**

WPI Acc No: 1999-534019/199945

XRFX Acc No: N99-396724

Automatic transaction system for financial institution - has ATM controller that retrieves transaction data from memory to ATM based on personal data taken by ATM camera, such that personal data in memory were stored based on personal data taken in customer terminal

Patent Assignee: OKI ELECTRIC IND CO LTD (OKID)

Number of Countries: 001 Number of Patents: 001

Patent Family:

| Patent No | Kind | Date | Applicat No | Kind | Date | Week |
|-------------|------|----------|-------------|------|----------|----------|
| JP 11232531 | A | 19990827 | JP 9848804 | A | 19980212 | 199945 B |

Priority Applications (No Type Date): JP 9848804 A 19980212

Patent Details:

| Patent No | Kind | Lan Pg | Main IPC | Filing Notes |
|-------------|------|--------|-------------|--------------|
| JP 11232531 | A | 8 | G07D-009/00 | |

Abstract (Basic): JP 11232531 A

NOVELTY - The camera (41) of a customer terminal (40) obtains the second personal data of a customer (1). Transaction data from registration unit (31) of a host computer (30) are stored to a memory (51) based on **second** personal data. An **ATM** controller (39) retrieves **transaction** data from memory to **ATM** (20) based on **first** personal data taken by the camera (21) of ATM.

USE - For financial institution.

ADVANTAGE - Prevents inaccurate transaction since transaction is performed based on personal data of customer. DESCRIPTION OF DRAWING(S)

- The figure shows the block diagram of the automatic transaction system. (1) **Customer**; (20) **ATM**; (21) Camera; (30) Host computer; (31) Registration unit; (39) **ATM** controller; (40) **Customer** terminal; (41) Camera; (51) Memory.

Dwg.1/4

Title Terms: **AUTOMATIC**; **TRANSACTION**; **SYSTEM**; **FINANCIAL**; **INSTITUTION**; **ATM**; **CONTROL**; **RETRIEVAL**; **TRANSACTION**; **DATA**; **MEMORY**; **ATM**; **BASED**; **PERSON**; **DATA**; **ATM**; **CAMERA**; **PERSON**; **DATA**; **MEMORY**; **STORAGE**; **BASED**; **PERSON**; **DATA**; **CUSTOMER**; **TERMINAL**

Derwent Class: P31; T01; T05

International Patent Class (Main): G07D-009/00

International Patent Class (Additional): A61B-005/117; **G06F-019/00**

File Segment: EPI; EngPI

24/5/30 (Item 25 from file: 350)
DIALOG(R)File 350:Derwent WPIX
(c) 2004 Thomson Derwent. All rts. reserv.

012577668 **Image available**
WPI Acc No: 1999-383775/199932
Related WPI Acc No: 1998-260901; 1999-287401; 2002-403612; 2002-433550;
2003-057843; 2003-801073; 2004-131794
XRPX Acc No: N99-287278

Data transaction management system in open network

Patent Assignee: DATASCAPE INC (DATA-N)

Inventor: WAGNER R H

Number of Countries: 001 Number of Patents: 001

Patent Family:

| Patent No | Kind | Date | Applicat No | Kind | Date | Week |
|------------|------|----------|-------------|------|----------|----------|
| US 5905908 | A | 19990518 | US 95493772 | A | 19950622 | 199932 B |
| | | | US 97995123 | A | 19971219 | |

Priority Applications (No Type Date): US 95493772 A 19950622; US 97995123 A 19971219

Patent Details:

| Patent No | Kind | Lan Pg | Main IPC | Filing Notes |
|------------|------|--------|-------------|--|
| US 5905908 | A | 37 | G06F-013/14 | Cont of application US 95493772 Cont of patent US 5742845 |

Abstract (Basic): US 5905908 A

NOVELTY - **Transaction** to be performed by a nonstandard input-output device is confirmed by an **identifier** in extended network protocol in client program. On confirmation of **transaction**, data in files of extended network protocol is correlated with data fields in **database** files of a server **database** accessed via application program, by a common gateway interface.

DETAILED DESCRIPTION - The data in the extended network protocol is communicated between the server program and the non-standard input-output devices coupled with the open network by the client program. The data files with the protocol statements are identified using **universal** resource locator. An INDEPENDENT CLAIM is also included for data **transaction** management method.

USE - For data **transaction** system such as **automatic teller machine**, point of sale terminals, credit card terminals, screenphone terminals which are connected to communication network.

ADVANTAGE - As the input-output devices communicate with multiple web servers for selecting a preferred **transaction** and **execution** payment method, utilization efficiency is raised. As confidential data is collected using Internet protocol, the data security and communication link is enhanced.

DESCRIPTION OF DRAWING(S) - The figure shows block diagram of open network system.

pp; 37 DwgNo 1/24

Title Terms: DATA; **TRANSACTION**; MANAGEMENT; SYSTEM; OPEN; NETWORK

Derwent Class: T01

International Patent Class (Main): **G06F-013/14**

International Patent Class (Additional): **G06F-013/42 ; G06F-015/16**

File Segment: EPI

24/5/31 (Item 26 from file: 350)
DIALOG(R)File 350:Derwent WPIX
(c) 2004 Thomson Derwent. All rts. reserv.

012565305 **Image available**
WPI Acc No: 1999-371411/199931
XRPX Acc No: N99-276922

Enhanced communications services provision method for communications network

Patent Assignee: TELEHUB COMMUNICATIONS CORP (TELE-N); TERABRIDGE TECHNOLOGIES CORP (TERA-N)

Inventor: CHANDLER T C; LAGRANDE J T; MCLAUGHLIN M G; SUND W M; ZAIDE A

Number of Countries: 082 Number of Patents: 004

Patent Family:

| Patent No | Kind | Date | Applicat No | Kind | Date | Week |
|------------|------|----------|--------------|------|----------|----------|
| WO 9930247 | A1 | 19990617 | WO 98US25530 | A | 19981202 | 199931 B |
| AU 9916183 | A | 19990628 | AU 9916183 | A | 19981202 | 199946 |
| EP 1034485 | A1 | 20000913 | EP 98960628 | A | 19981202 | 200046 |
| | | | WO 98US25530 | A | 19981202 | |
| TW 391111 | A | 20000521 | TW 98120165 | A | 19981204 | 200064 |

Priority Applications (No Type Date): US 97986214 A 19971205

Patent Details:

| Patent No | Kind | Lan | Pg | Main IPC | Filing Notes |
|-----------|------|-----|----|----------|--------------|
|-----------|------|-----|----|----------|--------------|

| | | | | | |
|------------|----|---|----|--------------|--|
| WO 9930247 | A1 | E | 48 | G06F-015/173 | |
|------------|----|---|----|--------------|--|

Designated States (National): AL AM AT AU AZ BA BB BG BR BY CA CH CN CU CZ DE DK EE ES FI GB GE GH GM HR HU ID IL IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT UA UG UZ VN YU ZW

Designated States (Regional): AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW NL OA PT SD SE SZ UG ZW

| | | | | | |
|------------|---|--|--|--------------|----------------------------|
| AU 9916183 | A | | | G06F-015/173 | Based on patent WO 9930247 |
|------------|---|--|--|--------------|----------------------------|

| | | | | | |
|------------|----|---|--|--------------|----------------------------|
| EP 1034485 | A1 | E | | G06F-015/173 | Based on patent WO 9930247 |
|------------|----|---|--|--------------|----------------------------|

Designated States (Regional): DE FR GB

| | | | | | |
|-----------|---|--|--|--------------|--|
| TW 391111 | A | | | H04L-027/156 | |
|-----------|---|--|--|--------------|--|

Abstract (Basic): WO 9930247 A1

NOVELTY - Information concerning a **transaction** traversing the network is collected real-time, and the **transaction** information is stored in a network. The stored data is accessed from the **database** in real-time.

DETAILED DESCRIPTION - Enhanced communications services are provided in conjunction with a communications network. Information concerning a **transaction** traversing a network (337) is collected in real-time, and is stored in a **database** (330). The stored information is accessed from the **database** in real-time (160). INDEPENDENT CLAIMS are included for; an apparatus for providing enhanced communications services in conjunction with a communications network.

USE - **Universal** communication network platform providing services on a virtual basis, with integrated management, billing and control capabilities at the **transaction** level.

ADVANTAGE - Provides narrow to broadband internet working, enables efficient use of existing **ATM** transport bandwidth, provides accurate bandwidth on demand, enables billing based on actual bandwidth used and the actual amount of data transported.

DESCRIPTION OF DRAWING(S) - The drawing shows a master service management system.

pp; 48 DwgNo 3/9

Title Terms: ENHANCE; COMMUNICATE; SERVICE; PROVISION; METHOD; COMMUNICATE; NETWORK

Derwent Class: T01

International Patent Class (Main): G06F-015/173 ; H04L-027/156

International Patent Class (Additional): G06F-017/30

File Segment: EPI

24/5/32 (Item 27 from file: 350)

DIALOG(R) File 350: Derwent WPIX

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012431322 **Image available**

WPI Acc No: 1999-237430/199920

XRPX Acc No: N99-176702

Customer transaction data register system for ATM in stores, financial establishment - reads transaction information from database of host, which is then encrypted and transmitted to user's information processor as E-mail

Patent Assignee: OKI ELECTRIC IND CO LTD (OKID)

Number of Countries: 001 Number of Patents: 001

Patent Family:

| Patent No | Kind | Date | Applicat No | Kind | Date | Week |
|-------------|------|----------|-------------|------|----------|----------|
| JP 11065959 | A | 19990309 | JP 97225945 | A | 19970822 | 199920 B |

Priority Applications (No Type Date): JP 97225945 A 19970822

Patent Details:

| Patent No | Kind | Lan Pg | Main IPC | Filing Notes |
|-------------|------|--------|-------------|--------------|
| JP 11065959 | A | 6 | G06F-013/00 | |

Abstract (Basic): JP 11065959 A

NOVELTY - The customer ID is read from the card inserted by the customer, is transmitted to a host along with password and E-mail address of the customer. The **transaction** information is read from a **database** (9) of the host, the information is encrypted and is transmitted to the customer's information processor as an E-mail through a network.

USE - The system is used for automatic **transaction** machines installed in financial establishments, stores and electric gas and telephone charge collecting machines.

ADVANTAGE - Avoids need for printing data in passbook and thus reduces labor involved in prolonged notebook **transactions**.

DESCRIPTION OF DRAWING(S) - The diagram shows the block diagram of the **entire** automatic **transaction** system.

Dwg.1/4

Title Terms: CUSTOMER; **TRANSACTION** ; DATA; REGISTER; SYSTEM; **ATM** ;

STORAGE; FINANCIAL; ESTABLISH; READ; **TRANSACTION** ; INFORMATION;

DATABASE ; HOST; ENCRYPTION; TRANSMIT; USER; INFORMATION; PROCESSOR; MAIL

Derwent Class: T01; T05; W01

International Patent Class (Main): **G06F-013/00**

International Patent Class (Additional): **G06F-019/00** ; H04L-012/54;

H04L-012/58

File Segment: EPI

24/5/33 (Item 28 from file: 350)

DIALOG(R)File 350:Derwent WPIX

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012218884 **Image available**

WPI Acc No: 1999-024990/199902

Related WPI Acc No: 1998-520713

XRPX Acc No: N99-019158

ATM exchange connection table new connection entry adding - locating nearest hole to identified insertion point, using enhanced bubble sort algorithm to reposition nearest hole to appropriate insertion point

Patent Assignee: TELEFONAKTIEBOLAGET ERICSSON L M (TELF)

Inventor: NOVEN G A

Number of Countries: 082 Number of Patents: 003

Patent Family:

| Patent No | Kind | Date | Applicat No | Kind | Date | Week |
|------------|------|----------|-------------|------|----------|----------|
| WO 9853636 | A1 | 19981126 | WO 98SE934 | A | 19980519 | 199902 B |
| AU 9876807 | A | 19981211 | AU 9876807 | A | 19980519 | 199917 |
| US 5884297 | A | 19990316 | US 96593497 | A | 19960130 | 199918 |
| | | | US 97862919 | A | 19970523 | |

Priority Applications (No Type Date): US 97862919 A 19970523; US 96593497 A 19960130

Patent Details:

| Patent No | Kind | Lan Pg | Main IPC | Filing Notes |
|------------|------|--------|-------------|--------------|
| WO 9853636 | A1 | E 105 | H04Q-011/04 | |

Designated States (National): AL AM AT AU AZ BA BB BG BR BY CA CH CN CU CZ DE DK EE ES FI GB GE GH GM GW HU ID IL IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT UA UG UZ VN YU ZW

Designated States (Regional): AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW NL OA PT SD SE SZ UG ZW

AJ 9876807 A H04Q-011/04 Based on patent WO 9853636
US 5884297 A G06F-017/30 Cont of application US 96593497

Abstract (Basic): WO 9853636 A

The method involves mapping **global** address of a group of **ATM** cells to a local address that is specific to an **ATM** exchange. A connection table is created by correlating the **global** address of each of the group of **ATM** cells to its local address. A number of holes in the connection table is incorporated. Each of the holes is a dummy data record representing an inactive connection. An entry is added to the connection table corresponding to a new connection using a data insertion algorithm. That step requires identifying the appropriate insertion point in the connection table for a new connection entry using a look-up algorithm.

The method further entails locating the nearest hole to the identified insertion point, using an enhanced bubble sort algorithm to reposition the nearest hole to the appropriate insertion point while maintaining the connection table in a fully sorted order. The new connection entry is written over the repositioned hole.

USE - For maintaining content addressable memory for managing connection information **database** Asynchronous Transfer Mode exchange.

ADVANTAGE - Allows efficient **execution** of interleaved look-up table and edit requests received by connection table in **ATM** exchange.

Dwg.9/19

Title Terms: **ATM** ; EXCHANGE; CONNECT; TABLE; NEW; CONNECT; ENTER; ADD; LOCATE; NEARBY; HOLE; IDENTIFY; INSERT; POINT; ENHANCE; BUBBLE; SORT; ALGORITHM; REPOSITION; NEARBY; HOLE; APPROPRIATE; INSERT; POINT

Derwent Class: T01; W01

International Patent Class (Main): G06F-017/30 ; H04Q-011/04

File Segment: EPI

24/5/34 (Item 29 from file: 350)

DIALOG(R)File 350:Derwent WPIX

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012103801 **Image available**

WPI Acc No: 1998-520713/199844

Related WPI Acc No: 1999-024990

XRPX Acc No: N98-406725

Database management method for ATM system - involves using modified bubble sort algorithm in which adding and deleting data is performed by moving dummy data record while sorting order is maintained

Patent Assignee: TELEFONAKTIEBOLAGET ERICSSON L M (TELF)

Inventor: NOVEN G A

Number of Countries: 001 Number of Patents: 001

Patent Family:

| Patent No | Kind | Date | Applicat No | Kind | Date | Week |
|------------|------|----------|-------------|------|----------|----------|
| US 5809501 | A | 19980915 | US 96593497 | A | 19960130 | 199844 B |

Priority Applications (No Type Date): US 96593497 A 19960130

Patent Details:

| Patent No | Kind | Lan | Pg | Main IPC | Filing Notes |
|------------|------|-----|----|-------------|--------------|
| US 5809501 | A | | 19 | G06F-017/30 | |

Abstract (Basic): US 5809501 A

The method involves mapping the **global** address of an **ATM** cell to a local cell which is local to the **ATM** cell. Using a binary search algorithm, the entries in the connection information **database** of the exchange portion are looked up. Data entries are added to the **database** using a bubble sort algorithm which is modified.

The modification in the algorithm is to move a dummy data record to the appropriate location while maintaining connection information in the fully sorted order. Data entries are also deleted using a modified algorithm while maintaining connection information in the fully sorted order.

USE - For public telecommunication network, video communication,

multimedia application.

ADVANTAGE - Permits efficient execution of interleaved lookup and edit requests. Maintains database in sorted order. Does not impose additional computational costs.

10,12/12

Title Terms: DATABASE ; MANAGEMENT; METHOD; ATM ; SYSTEM; MODIFIED; BUBBLE; SORT; ALGORITHM; ADD; DELETE; DATA; PERFORMANCE; MOVE; DUMMY; DATA; RECORD; SORT; ORDER; MAINTAIN

Derwent Class: T01

International Patent Class (Main): G06F-017/30

File Segment: EPI

24/5/35 (Item 30 from file: 350)

DIALOG(R) File 350:Derwent WPIX

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011855564 **Image available**

WPI Acc No: 1998-272474/199824

XRPX Acc No: N98-213863

Fail-safe event-driven transaction processing system for electronic commerce - has at least one system node having application processes for processing transactions initiated by remote devices e.g. ATMs

Patent Assignee: ELECTRONIC DATA SYSTEMS CORP (ELDA-N)

Inventor: JAHANIAN T R; JEFFREY R E; KEARNS K A; JEFFERY R E

Number of Countries: 036 Number of Patents: 008

Patent Family:

| Patent No | Kind | Date | Applicat No | Kind | Date | Week |
|------------|------|----------|--------------|------|----------|----------|
| WO 9819262 | A1 | 19980507 | WO 97US19774 | A | 19971029 | 199824 B |
| AU 9851959 | A | 19980522 | AU 9851959 | A | 19971029 | 199840 |
| US 5805798 | A | 19980908 | US 96741149 | A | 19961029 | 199843 |
| EP 935786 | A1 | 19990818 | EP 97946866 | A | 19971029 | 199937 |
| | | | WO 97US19774 | A | 19971029 | |
| CN 1244268 | A | 20000209 | CN 97181124 | A | 19971029 | 200026 |
| AU 718006 | B | 20000406 | AU 9851959 | A | 19971029 | 200027 |
| MX 9903748 | A1 | 19990801 | MX 993748 | A | 19990422 | 200063 |
| MX 205711 | B | 20011218 | WO 97US19774 | A | 19971029 | 200362 |
| | | | MX 993748 | A | 19990422 | |

Priority Applications (No Type Date): US 96741149 A 19961029

Patent Details:

| Patent No | Kind | Lan | Pg | Main IPC | Filing Notes |
|-----------|------|-----|----|----------|--------------|
|-----------|------|-----|----|----------|--------------|

| | | | | | |
|------------|----|---|----|-------------|--|
| WO 9819262 | A1 | E | 52 | G06F-017/60 | |
|------------|----|---|----|-------------|--|

Designated States (National): AU BB BR CA CN CZ FI JP KR MX NO NZ PL RU SG SK TT VN

Designated States (Regional): AT BE CH DE DK ES FI FR GB GR IE IT LU MC NL PT SE

| | | | | |
|------------|---|--|-------------|----------------------------|
| AU 9851959 | A | | G06F-017/60 | Based on patent WO 9819262 |
|------------|---|--|-------------|----------------------------|

| | | | | |
|------------|---|--|-------------|--|
| US 5805798 | A | | G06F-011/00 | |
|------------|---|--|-------------|--|

| | | | | |
|-----------|----|---|-------------|----------------------------|
| EP 935786 | A1 | E | G06F-017/60 | Based on patent WO 9819262 |
|-----------|----|---|-------------|----------------------------|

Designated States (Regional): AT BE CH DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE

| | | | | |
|------------|---|--|-------------|--|
| CN 1244268 | A | | G06F-017/60 | |
|------------|---|--|-------------|--|

| | | | | |
|-----------|---|--|-------------|--|
| AU 718006 | B | | G06F-017/60 | Previous Publ. patent AU 9851959 Based on patent WO 9819262 |
|-----------|---|--|-------------|--|

| | | | | |
|------------|----|--|-------------|--|
| MX 9903748 | A1 | | G06F-017/60 | |
|------------|----|--|-------------|--|

| | | | | |
|-----------|---|--|-------------|--|
| MX 205711 | B | | G06F-011/14 | |
|-----------|---|--|-------------|--|

Abstract (Basic): WO 9819262 A

The transaction processing system includes at least one system node having multiple entities and processes for communicating with outside devices e.g. ATMs and financial institutions. Multiple links are provided between the system nodes to provide flexible routing in case of down nodes.

A configuration database is accessible by all the processes and provides a back-up entity or process for each entity or process. A system monitor resides at each system node, and monitors the

operational status of each node and communicates the status to other nodes.

USE - Electronic funds transfer between financial institutions.

ADVANTAGE - Allows user to customise user interface for application specific commands.

Dwg.2/14

Title Terms: FAIL; SAFE; EVENT; DRIVE; **TRANSACTION** ; PROCESS; SYSTEM;
ELECTRONIC; ONE; SYSTEM; NODE; APPLY; PROCESS; PROCESS; **TRANSACTION** ;
INITIATE; REMOTE; DEVICE

Derwent Class: T01; U21

International Patent Class (Main): G06F-011/00 ; G06F-011/14 ;

G06F-017/60

International Patent Class (Additional): G06F-011/14

File Segment: EPI

24/5/36 (Item 31 from file: 350)

DIALOG(R) File 350:Derwent WPIX

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011001042

WPI Acc No: 1996-497991/199649

XRPX Acc No: N96-419925

**Preventing fraudulent transactions from electronic banking machine -
supplying card holder with two or more confidential codes which are
used alternately when performing transactions**

Patent Assignee: GARDNER B D (GARD-I); GARDNER D A (GARD-I); GARDNER S D
(GARD-I)

Inventor: GARDNER B D

Number of Countries: 001 Number of Patents: 001

Patent Family:

| Patent No | Kind | Date | Applicat No | Kind | Date | Week |
|------------|------|----------|-------------|------|----------|----------|
| ZA 9507817 | A | 19960626 | ZA 957817 | A | 19950915 | 199649 B |

Priority Applications (No Type Date): ZA 947149 A 19940915

Patent Details:

| Patent No | Kind | Lan Pg | Main IPC | Filing Notes |
|------------|------|--------|----------------|--------------|
| ZA 9507817 | A | E | 16 G06F-000/00 | |

Abstract (Basic): ZA 9507817 A

The method of preventing fraudulent **transactions** involves providing a bank card holder with two or more different **confidential codes** . All of the codes are stored in a memory of an electronic processor. The processor is linked to an electronic banking machine so as to allow communication between them. The processor identifies one of the codes for use in a following future **transaction** . The **confidential codes** are stored in the form of an electronic **data base** of a central electronic processor. A different code is identified for use in a subsequent **transaction** .

USE - For **automatic teller machine** . For smart cards.

ADVANTAGE - More secure due to using more than one code.

Dwg.0/0

Title Terms: PREVENT; FRAUD; **TRANSACTION** ; ELECTRONIC; BANK; MACHINE;
SUPPLY; CARD; HOLD; TWO; MORE; CONFIDE; CODE; ALTERNATE; PERFORMANCE;
TRANSACTION

Derwent Class: T01

International Patent Class (Main): G06F-000/00

International Patent Class (Additional): G06K-000/00

File Segment: EPI

24/5/37 (Item 32 from file: 350)

DIALOG(R) File 350:Derwent WPIX

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009450686 **Image available**

WPI Acc No: 1993-144211/199317

XRPX Acc No: N93-110097

Self-sorting memory system e.g. for numerical analysis, relational data base management, file sorting - uses cascaded modules with levels of memory cells among which levels data are displaced along ordered path indicated by pointers

Patent Assignee: ARMSTRONG P N (ARMS-I)

Inventor: ARMSTRONG P N

Number of Countries: 001 Number of Patents: 001

Patent Family:

| Patent No | Kind | Date | Applicat No | Kind | Date | Week |
|------------|------|----------|-------------|------|----------|----------|
| US 5204967 | A | 19930420 | US 84615102 | A | 19840529 | 199317 B |
| | | | US 86816062 | A | 19860103 | |
| | | | US 90492585 | A | 19900313 | |

Priority Applications (No Type Date): US 90492585 A 19900313; US 84615102 A 19840529; US 86816062 A 19860103

Patent Details:

| Patent No | Kind | Lan | Pg | Main IPC | Filing Notes |
|------------|------|-----|----|-------------|--|
| US 5204967 | A | | 17 | G06F-007/24 | CIP of application US 84615102 CIP of application US 86816062 |

Abstract (Basic): US 5204967 A

The system (**SSM**) has records to be sorted stored in selected memory cells in random access memories. The system is constructed so that the amount of time required to sort the records depends only on the number of records to be sorted, that is, the sorting time depends upon the time required to feed the unsorted records serially into the system and the time required to output the sorted records serially from the system. The system also has the feature that additional unsorted records may be fed into the system and sorted with records already in the system after sorted records have been partially withdrawn from the system. The system is also capable of operating in a non-destruct mode in which sorted output are returned to the system.

For economical construction the system is made up of a number of identical modules, and the words making up each record are distributed among the modules for simultaneous processing.

ADVANTAGE - Each module is composed of standard, conventional random access storage registers and associated relatively simple switching circuits.

Dwg.9/20

Title Terms: SELF; SORT; MEMORY; SYSTEM; NUMERIC; ANALYSE; RELATED; DATA; BASE; MANAGEMENT; FILE; SORT; CASCADE; MODULE; LEVEL; MEMORY; CELL; LEVEL ; DATA; DISPLACE; ORDER; PATH; INDICATE; POINT

Derwent Class: T01

International Patent Class (Main): **G06F-007/24**

File Segment: EPI

24/5/38 (Item 33 from file: 350)

DIALOG(R)File 350:Derwent WPIX

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008931096 **Image available**

WPI Acc No: 1992-058365/199208

XRPX Acc No: N92-044308

Cache data consistency maintaining method - adds cache lock, appending lock and out-of-date lock to two-lock concurrency control system

Patent Assignee: HEWLETT-PACKARD CO (HEWP)

Inventor: NEIMAT M A; WILKINSON K W; NEIMAT M; WILKINSON W K

Number of Countries: 004 Number of Patents: 003

Patent Family:

| Patent No | Kind | Date | Applicat No | Kind | Date | Week |
|------------|------|----------|-------------|------|----------|----------|
| EP 471282 | A | 19920219 | EP 91113284 | A | 19910808 | 199208 B |
| US 5261069 | A | 19931109 | US 90566732 | A | 19900813 | 199346 |
| EP 471282 | A3 | 19930915 | EP 91113284 | A | 19910808 | 199509 |

Priority Applications (No Type Date): US 90566732 A 19900813

Cited Patents: NoSR..Pub; 3.Jnl.Ref

Patent Details:

| Patent No | Kind | Lan | Pg | Main IPC | Filing Notes |
|-----------|------|-----|----|----------|--------------|
|-----------|------|-----|----|----------|--------------|

| | | | | | |
|-----------|---|--|--|--|--|
| EP 471282 | A | | | | |
|-----------|---|--|--|--|--|

Designated States (Regional): DE FR GB

| | | | | | |
|------------|---|--|----|-------------|--|
| US 5261069 | A | | 17 | G06F-001/00 | |
|------------|---|--|----|-------------|--|

Abstract (Basic): EP 471282 A

The method involves acquiring a cache lock on a **database** object that has been copied into the cache for use by first client application. The cache lock is changed to an out-of-date lock is the **database** object is altered.

USE/ADVANTAGE - Airline booking, banking systems, **ATMs** , etc. Low overhead way of ensuring consistency of cached data at **all** critical times in client-server **database** system, easily implemented in conventional two-lock concurrency control system. (18pp Dwg.No.2/7)

Title Terms: CACHE; DATA; CONSISTENCY; MAINTAIN; METHOD; ADD; CACHE; LOCK; LOCK; LOCK; CONTROL; SYSTEM

Derwent Class: T01

International Patent Class (Main): **G06F-001/00**

International Patent Class (Additional): **G06F-015/40**

File Segment: EPI

| Set | Items | Description |
|------|--|--|
| S1 | 174282 | ATM OR ATMS OR AUTOMATIC()TELLER()MACHINE? OR SELF()SERVIC- E()MACHINE? OR SSM OR SSMS |
| S2 | 10916831 | GLOBAL OR UNIVERSAL OR ALL() (EMBRACING OR ENCOMPASSING) OR INCLUSIVE OR ENTIRE? OR ALL OR SINGLE |
| S3 | 9350938 | FIRST OR 1ST OR PRIME OR PRIMARY OR INITIAL OR MAIN OR ORI- GINAL |
| S4 | 6001539 | SECOND OR 2ND OR NEXT OR SUCCEEDING OR SUCCESSIVE OR FOLLO- WING OR SUBSEQUENT |
| S5 | 239907 | (OBJECT? OR RELATIONAL?) () (DATABASE? OR DATA()BASE?) OR OB- JECT()ORIENTED OR OO OR OOPL OR OODB OR RDBM OR RDB OR OOPLS - OR OODBS OR RDBMS |
| S6 | 869121 | DATA()WAREHOUSE OR DATABASE OR DATA()BASE OR KNOWLEDGE()BA- SE |
| S7 | 2088080 | USER OR CLIENT? OR BUYER? OR CONSUMER OR CUSTOMER? OR PATR- ON? |
| S8 | 4190064 | TRANSACTION? OR ACTIVIT? OR EXECUTION |
| S9 | 16718 | (SMART OR CHIP OR IC) ()CARD OR SMARTCARD OR ICCARD RO CHIP- CARD |
| S10 | 238733 | PIN OR PERSONAL()IDENTIFICATION()UMBER? OR SECURITY()CODE? OR ID OR IDENTIFIER? OR SECRET()NUMBER? OR (CONFIDENTIAL OR P- RIVATE) ()CODE? |
| S11 | 1160 | S1 (3N) S8 |
| S12 | 3742 | S1 (3N) S7 |
| S13 | 4081 | S3 (3N) S1 |
| S14 | 2767 | S4 (3N) S1 |
| S15 | 1 | S11 (S) S12 (S) S13 (S) S14 |
| S16 | 3 | S12 (S) S13 (S) S6 |
| S17 | 1570 | S1 (S) S6 |
| S18 | 206 | S1 (5N) S6 |
| S19 | 4 | S18 (S) S5 |
| S20 | 9641 | (S8 OR S9 OR S10) (S) S1 |
| S21 | 52 | S20 (S) S5 |
| S22 | 2731 | S20 (S) S2 |
| S23 | 21 | S21 (S) S6 |
| S24 | 27 | S15 OR S16 OR S19 OR S23 |
| S25 | 25 | S24 NOT PY>2000 |
| S26 | 17 | S25 NOT PD>20000111 |
| S27 | 17 | RD (unique items) |
| File | 2:INSPEC 1969-2004/Jul W1 | (c) 2004 Institution of Electrical Engineers |
| File | 6:NTIS 1964-2004/Jul W2 | (c) 2004 NTIS, Intl Cpyrght All Rights Res |
| File | 8:Ei Compendex(R) 1970-2004/Jul W1 | (c) 2004 Elsevier Eng. Info. Inc. |
| File | 34:SciSearch(R) Cited Ref Sci 1990-2004/Jul W1 | (c) 2004 Inst for Sci Info |
| File | 35:Dissertation Abs Online 1861-2004/May | (c) 2004 ProQuest Info&Learning |
| File | 65:Inside Conferences 1993-2004/Jul W2 | (c) 2004 BLDSC all rts. reserv. |
| File | 92:IHS Intl.Stds.& Specs. 1999/Nov | (c) 1999 Information Handling Services |
| File | 94:JICST-EPlus 1985-2004/Jun W3 | (c)2004 Japan Science and Tech Corp(JST) |
| File | 95:TEME-Technology & Management 1989-2004/Jun W1 | (c) 2004 FIZ TECHNIK |
| File | 99:Wilson Appl. Sci & Tech Abs 1983-2004/Jun | (c) 2004 The HW Wilson Co. |
| File | 103:Energy SciTec 1974-2004/Jun B2 | (c) 2004 Contains copyrighted material |
| File | 144:Pascal 1973-2004/Jul W1 | (c) 2004 INIST/CNRS |
| File | 202:Info. Sci. & Tech. Abs. 1966-2004/Jul 12 | (c) 2004 EBSCO Publishing |
| File | 233:Internet & Personal Comp. Abs. 1981-2003/Sep | (c) 2003 EBSCO Pub. |

File 239:Mathsci 1940-2004/Aug
 (c) 2004 American Mathematical Society
File 275:Gale Group Computer DB(TM) 1983-2004/Jul 12
 (c) 2004 The Gale Group
File 434:SciSearch(R) Cited Ref Sci 1974-1989/Dec
 (c) 1998 Inst for Sci Info
File 647:CMP Computer Fulltext 1988-2004/Jul W1
 (c) 2004 CMP Media, LLC
File 674:Computer News Fulltext 1989-2004/Jun W4
 (c) 2004 IDG Communications
File 696:DIALOG Telecom. Newsletters 1995-2004/Jul 13
 (c) 2004 The Dialog Corp.

27/5/1 (Item 1 from file: 2)

DIALOG(R)File 2:INSPEC

(c) 2004 Institution of Electrical Engineers. All rts. reserv.

5513633 INSPEC Abstract Number: B9704-6210C-074, C9704-7410F-083

Title: Real-time MIB: Implementation and evaluation

Author(s): Kiriha, Y.

Author Affiliation: C&C Res. Labs., NEC, Kanagawa, Japan

Conference Title: NOMS 96. 1996 IEEE Network Operations and Management Symposium (Cat. No.96CH35757) Part vol.2 p.608-11 vol.2

Publisher: IEEE, New York, NY, USA

Publication Date: 1996 Country of Publication: USA 4 vol. (xvii+754+56) pp.

ISBN: 0 7803 2518 4 Material Identity Number: XX96-02751

U.S. Copyright Clearance Center Code: 0 7803 2518 4/96/\$5.00

Conference Title: Proceedings of NOMS '96 - IEEE Network Operations and Management Symposium

Conference Sponsor: IEEE Commun. Soc.; IFIP

Conference Date: 15-19 April 1996 Conference Location: Kyoto, Japan

Language: English Document Type: Conference Paper (PA)

Treatment: Applications (A); Practical (P)

Abstract: Summary form only given. In almost all current network management systems, a **relational database** or an **object oriented database** has been utilized for implementing the management information base (MIB). By using such conventional databases, network management systems can benefit from efficient query processing and reliable **transaction** processing. However, these features are not sufficient for managing evolving telecommunication networks and services. In order to deal with this problem and to sustain the timely user response and the quality of network services under any circumstances, it is important for the conventional MIB to add real-time capabilities that take into account the priority of each management operation. A real-time **database** system (RTDBS) is a **database** system that has real-time capabilities. The main objective of the RTDBS is to complete **transactions** before their deadlines expire. In order to study a new MIB implementation, we have evaluated the effectiveness of the RTDBS. The RTDBS contains a variety of modules, such as **transaction** scheduling, concurrency control, and buffer management. Among these, we focus on **transaction** scheduling by using a memory based RTDBS. In our evaluation, we consider an **ATM** transmission network that consists of 7 network elements, and 28 physical links. (0 Refs)

Subfile: B C

Descriptors: asynchronous transfer mode; maintenance engineering; real-time systems; scheduling; telecommunication network management

Identifiers: real-time MIB; network management systems; relational database; object oriented database; real time management information base; query processing; transaction processing; telecommunication networks; telecommunication services; network services quality; real-time database system; ATM transmission network; network elements; transaction scheduling; memory based RTDBS

Class Codes: B6210C (Network management); B6150C (Communication switching); C7410F (Communications computing); C6160Z (Other DBMS)

Copyright 1997, IEE

27/5/2 (Item 2 from file: 2)

DIALOG(R)File 2:INSPEC

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03199722 INSPEC Abstract Number: D88002336

Title: Thrift credits new system for 40% DP savings

Author(s): Fuentebella, C.

Journal: Bank Systems & Equipment vol.25, no.7 p.45

Publication Date: July 1988 Country of Publication: USA

CODEN: BSEQD6 ISSN: 0146-0900

Language: English Document Type: Journal Paper (JP)

Treatment: General, Review (G)

Abstract: Denver's Capitol Federal Savings converted to software from

General Motors' Electronic Data Systems. Project Harmony uses 4GL and **relational database** design. Designed for mid-range banks and savings institutions, the software covers the entire deposit and credit base, and provides control of **transaction** origination and receipt through EFT, item processing, online **ATMs** and teller systems. The project follows the systems applications architecture specified for the IBM Silverlake minicomputer, which is expected to be part of IBM's grand strategy in the battle for computer supremacy. (0 Refs)

Subfile: D

Descriptors: bank data processing; banking

Identifiers: Denver; Capitol Federal Savings; Electronic Data Systems; Harmony; banks; deposit; credit; transaction origination; EFT; item processing; online ATMs; teller systems; systems applications architecture; IBM Silverlake minicomputer

Class Codes: D2050E (Banking)

27/5/3 (Item 1 from file: 8)

DIALOG(R) File 8: Ei Compendex(R)

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05058033 E.I. No: EIP98074279516

Title: Sthana profitability forecast and situation analysis for automated teller machines

Author: Way, Cyril

Corporate Source: ISoft, Gif sur Yvette, Fr

Conference Title: Proceedings of the 1997 9th Conference on Innovative Applications of Artificial Intelligence

Conference Location: Providence, RI, USA Conference Date: 19970727-19970731

E.I. Conference No.: 48600

Source: Innovative Applications of Artificial Intelligence - Conference Proceedings 1997. AAAI, Menlo Park, CA, USA. p 926-931

Publication Year: 1997

CODEN: 85PZAB

Language: English

Document Type: CA; (Conference Article) Treatment: A; (Applications)

Journal Announcement: 9809W1

Abstract: The French credit card system makes it highly profitable for banks to have heavily used Automated Teller Machines (ATM). 'La Caisse d'Epargne', one of the major French bank, manages 5000 ATMs all over France. The goal of the Sthana system is to capitalize the knowledge spread all over the company into a system capable of issuing recommendations for existing ATM's and capable of forecasting a new ATM's activity. Sthana uses Data Mining and Case-Based-Reasoning techniques so as to extract information from existing data (including economic, geographical and internal bank data) and from the bank's ATM experts. The system builds up classifications on high level descriptors from raw data and eventually indicates a measure of the ATM's activity and profitability, highlights factors which could lead to higher profitability or pinpoints the ATM's vulnerabilities. An **object - oriented** model coupled with an extremely modular system allows the data and rules to be customized for geographical units of the bank. Sthana has been deployed and customized for different geographical units, but the **knowledge base** is centralized in the bank headquarters in Paris. (Author abstract) 11 Refs.

Descriptors: *Automatic teller machines; Knowledge based systems; Expert systems; Smart cards; Artificial intelligence; High level languages; Object oriented programming; Information retrieval systems

Identifiers: Credit card system; Case based reasoning technique; Data mining technique

Classification Codes:

723.4.1 (Expert Systems); 723.1.1 (Computer Programming Languages)

723.2 (Data Processing); 723.4 (Artificial Intelligence); 722.4 (Digital Computers & Systems); 723.5 (Computer Applications); 723.1 (Computer Programming)

723 (Computer Software); 722 (Computer Hardware)

72 (COMPUTERS & DATA PROCESSING)

27/5/4 (Item 1 from file: 94)
DIALOG(R)File 94:JICST-EPlus
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03164304 JICST ACCESSION NUMBER: 97A0616177 FILE SEGMENT: JICST-E
**Design and Implementation of a Parallel Query Processing System on an ATM
connected PC Cluster.**

TAMURA TAKAYUKI (1); OGUCHI MASATO (1); KITSUREGAWA MASARU (1)
(1) Inst. of Ind. Sci., Univ. of Tokyo
Denshi Joho Tsushin Gakkai Gijutsu Kenkyu Hokoku(IEIC Technical Report
(Institute of Electronics, Information and Communication Engineers),
1997, VOL.97,NO.36(DE97 1-5), PAGE.1-6, FIG.7, TBL.2, REF.5

JOURNAL NUMBER: S0532BBG

UNIVERSAL DECIMAL CLASSIFICATION: 681.3:654 681.3:061.68

LANGUAGE: Japanese COUNTRY OF PUBLICATION: Japan

DOCUMENT TYPE: Journal

ARTICLE TYPE: Original paper

MEDIA TYPE: Printed Publication

ABSTRACT: Recently, personal computers get faster and cheaper quite rapidly. On the other hand, the next generation standard network technologies are coming. This makes the massively parallel processing based on commodity PC clusters a reality. We built a large scale PC cluster which consists of one hundred Pentium Pro PCs interconnected by an **ATM** switch. Our main applications are massively parallel **relational database** processing and massively parallel data mining. This paper presents design and implementation of a parallel query processing system built on the PC cluster. We also show that the system can support **execution** of complex queries and can achieve superior performance compared with the commercial parallel systems, through **execution** of a query from the TPC-D benchmark in various ways. (author abst.)

DESCRIPTORS: ATM network; query processing; parallel processing;
SQL(software); benchmark(computer); personal computer; performance
analysis; pipeline processing; parallel computer; massively parallel
computers

BROADER DESCRIPTORS: communication network; information network; network;
information processing; treatment; application oriented language;
programming language; formal language; language; digital computer;
computer; hardware; analysis

CLASSIFICATION CODE(S): JC03000K; JD03030U

27/5/5 (Item 2 from file: 94)
DIALOG(R)File 94:JICST-EPlus
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02896625 JICST ACCESSION NUMBER: 97A0477916 FILE SEGMENT: PreJICST-E
**Implementation of a parallel relational database server on an ATM
connected PC cluster.**

TAMURA TAKAYUKI (1); OGUCHI MASATO (1); KITSUREGAWA MASARU (1)
(1) Inst. of Ind. Sci., Univ. of Tokyo
Joho Shori Gakkai Zenkoku Taikai Koen Ronbunshu, 1997, VOL.54th,NO.3,
PAGE.3.231-3.232

JOURNAL NUMBER: S0731ACN

LANGUAGE: Japanese COUNTRY OF PUBLICATION: Japan

DOCUMENT TYPE: Conference Proceeding

MEDIA TYPE: Printed Publication

27/5/6 (Item 3 from file: 94)
DIALOG(R)File 94:JICST-EPlus
(c)2004 Japan Science and Tech Corp(JST). All rts. reserv.

02187565 JICST ACCESSION NUMBER: 94A0857978 FILE SEGMENT: JICST-E
Implementing A Hypothetical Reasoning Tool On A Powersystem Database.

OGASAWARA FUMIHISA (1); SEGAWA OSAMU (1); WAKABAYASHI TERU (2); HIYAMA YOSHITAKA (2); YOSHIMURA YOSHIHIKO (3); ISHIBE NAOKO (3); MATSUMOTO KAZUNORI (3)

(1) Chubu Electric Power Co., Ltd.; (2) Fujitsu Ltd.; (3) Toshiba Corp.
Denshi Joho Tsushin Gakkai Gijutsu Kenkyu Hokoku(IEIC Technical Report
(Institute of Electronics, Information and Communication Engineers),
1994, VOL.94,NO.224(DE94 55-63), PAGE.55-62, FIG.13, REF.8

JOURNAL NUMBER: S0532BBG

UNIVERSAL DECIMAL CLASSIFICATION: 681.3:007.51 621.311.1

LANGUAGE: Japanese COUNTRY OF PUBLICATION: Japan

DOCUMENT TYPE: Journal

ARTICLE TYPE: Original paper

MEDIA TYPE: Printed Publication

ABSTRACT: Hypothetical reasoning can handle incomplete knowledge as hypothesis. And then, it is applicable for various kinds of practical problems. We apply it for a powersystem database to infer how the electricity is supplied for each electric line making unknown state of switches as hypothesis. The main part of this papers presents the implementation of the ATMS(Assumption Based Truth Maintenance System) on the **object - oriented powersystem database** . Although the **ATMS** is an efficient and successful hypothetical reasoning tool, it has crucial problem of exponential growth the computation time as increase the hypothesis size. To escape this problem, we divide the powersystem into some subsystems, and then a local ATMS runs on such a subsystem. Thus the size of the subsystem is relatively small, the local ATMS finishes the computation in reasonable time. Finally, they communicate with each other to get global inference result. (author abst.)

DESCRIPTORS: hypothetical reasoning; electric power facility;
object-oriented database; ATMS; decomposition method; algorithm;
electric power system

BROADER DESCRIPTORS: inference; database; inference machine; computer
architecture; computer system(architecture); method; optimization
method; system

CLASSIFICATION CODE(S): JE080002; NB02000E

?T S27/5,K/8-13,17

27/5,K/8 (Item 2 from file: 275)

DIALOG(R)File 275:Gale Group Computer DB(TM)

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01742267 SUPPLIER NUMBER: 16235091 (USE FORMAT 7 OR 9 FOR FULL TEXT)

**AT&T win: Electronic Payment Services selects AT&T massively parallel
system for transaction repository - all MAC, BUYPASS transactions to be
stored on 3600 for improved efficiency, timeliness.**

EDGE, on & about AT&T, v9, n334, p24(1)

Dec 19, 1994

LANGUAGE: ENGLISH RECORD TYPE: FULLTEXT

WORD COUNT: 523 LINE COUNT: 00042

COMPANY NAMES: AT and T Global Information Solutions--Contracts;
Electronic Payment Services Inc.--Contracts

DESCRIPTORS: Contracts; Telecommunications Services Industry;
Communications Equipment; Massive Parallelism; Supercomputers;
Transaction systems (Computer systems); Online Transaction Processing;
POS Systems; Point-of-sale systems

SIC CODES: 3571 Electronic computers

TRADE NAMES: AT and T 3600 (Pentium-based system)--Contracts

FILE SEGMENT: CD File 275

... MAC network is the largest electronic funds transfer (EFT) network in the United States based on switch **transactions** . The MAC network covers 32 states and processes more than one billion **transactions** annually through 16,500 **ATMs** . BUYPASS Corporation processes 650 million **transactions** each year through 120,000 POS systems. All **transactions** will be stored in an Oracle7 **relational database** on the UNIX-based AT&T 3600.

"Our objective was to find a scalable, cost-effective solution...

27/5,K/9 (Item 3 from file: 275)
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01703036 SUPPLIER NUMBER: 16237758 (USE FORMAT 7 OR 9 FOR FULL TEXT)
IBM's flexible friend. (the DB2 relational database)
Vowler, Julia
Computer Weekly, p22(2)
August 11, 1994
DOCUMENT TYPE: biography ISSN: 0010-4787CMPT _ ISSN: 0010-4787LC _
ISSN: 0010-3632493 LANGUAGE: ENGLISH RECORD TYPE: FULLTEXT; -
ABSTRACT
WORD COUNT: 2328 LINE COUNT: 00179

ABSTRACT: IBM is basing much of its future marketing strategy on the flexibility of its DB2 relational DBMS. Originally developed as a mainframe DBMS running only in the proprietary MVS operating system, DB2 is now being developed not only for all of IBM's operating systems, but for the platforms of competitors as well. Now, in addition to DB2 software for the AIX, OS/2 and AS/400 platforms, IBM is also marketing versions designed for the HP Unix workstation and the Windows NT operating system. Industry analysts point out that this strategy enables IBM to shift from an attempt to establish a hardware monopoly to one where the database itself becomes the means of locking in customers. Meanwhile, recent versions of the DB2 mainframe DBMS, which is now up to DB2 3.1, continue to improve both performance and availability.

SPECIAL FEATURES: illustration; photograph
COMPANY NAMES: International Business Machines Corp.--Marketing
DESCRIPTORS: Marketing Strategy; Relational Database Management System;
Open System; Mainframe/Minicomputer Management Software
BIOGRAPHEE: Computers and Office Automation; Telecommunications
TICKER SYMBOLS: IBM
TRADE NAMES: DB2 (DBMS)--Marketing; DB2/6000 (DBMS)--Marketing; DB2 for
MVS 3.1 (DBMS)--Marketing; DB2 for Windows NT (DBMS)--Marketing
OPERATING PLATFORM: UNIX; AIX; OS/2; Microsoft Windows NT
FILE SEGMENT: CD File 275

... of DB2," he adds.

Like all relational databases, DB2's design strength is for query processing, not **transaction** processing. But while NatWest still needs to rely on its hierarchical IMS Fastpath **database** to run its asynchronous transfer mode (**ATM**) system, DB2 has to be able to sustain a considerable online **transaction** processing (OLTP) workload. "The OLTP demands can peak at around 3,000 SQL [Structured Query Language] statements...

27/5,K/10 (Item 4 from file: 275)
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01433132 SUPPLIER NUMBER: 10581826 (USE FORMAT 7 OR 9 FOR FULL TEXT)
Where objects begin and relational DBMS leaves off: Digital offers three solutions for handling the complex data of the 1990s. (database management system)
DBMS, v4, n4, pS19(3)
April, 1991
ISSN: 1041-5173 LANGUAGE: ENGLISH RECORD TYPE: FULLTEXT; ABSTRACT
WORD COUNT: 1641 LINE COUNT: 00140

ABSTRACT: There is some confusion regarding objects, object-oriented programming and the impact they will have on database management. It is easy to confuse efforts to extend the relational model with efforts to ease complex programming tasks with object orientation. Both of these ideas are entangled with the notion of an object-oriented DBMS. DEC has three

solutions for managing the complex data of the 1990s. The vendor is extending the relational model with each release of Rdb to improve data management. The recently released Trellis is an object-oriented programming environment that connects to relational data. DEC's Objectivity/DB is a complete object-oriented database management system. The benefits of the various object-oriented approaches are also discussed.

CAPTIONS: The emergence of object-oriented programming. (chart); Different applications require different tools. (chart)

SPECIAL FEATURES: illustration; chart

COMPANY NAMES: Digital Equipment Corp.--Product development

DESCRIPTORS: Product Development; Object-Oriented Data Bases; DBMS

SIC CODES: 7372 Prepackaged software

TICKER SYMBOLS: DEC

FILE SEGMENT: CD File 275

... data, such as monthly credit card bilings. They are good for high-transaction-rate applications, such as **ATM** networks. **Relational database** systems provide good support for ad hoc queries where the user declares what to retrieve from the **database** as opposed to how.

As we move into the 1990s, however, database management systems are being called...

27/5,K/11 (Item 5 from file: 275)

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01203509 SUPPLIER NUMBER: 06072216

What's needed in a DBMS for online processing. (online transaction processing) (includes related article on the Structured Query Language's emergence as a relational DBMS standard)

Weingarten, Paul

Canadian Datasystems, v19, n6, p50(2)

June, 1987

ISSN: 0008-3364

LANGUAGE: ENGLISH

RECORD TYPE: ABSTRACT

ABSTRACT: Computer hardware costs fall, but applications development remains time consuming and costly. About half of all applications require **database** access, so DBMSs need to offer higher productivity in application development, easier data handling, and easier program movement between systems. By the early 1990s users may require as high as 1,000 **transactions** per second due to increased use of such **transaction**-based services as **ATMs**. On-line **transaction** processing (OLTP) relies increasingly on **database** access. SQL makes application programs easy to design, but high-level performance is lacking. In contrast, high-performance DBMSs used with OLTP systems are inflexible and complex. New systems should be based on the **relational database** model using related tables of data. An additional benefit of the tables is that data may be processed in distributed databases by sets rather than individually.

DESCRIPTORS: Relational Data Base Management Systems; Online Transaction Processing; Online; Database Design; User Need; Software Design; Outlook; Distributed Database; SQL

FILE SEGMENT: CD File 275

...ABSTRACT: hardware costs fall, but applications development remains time consuming and costly. About half of all applications require **database** access, so DBMSs need to offer higher productivity in application development, easier data handling, and easier program movement between systems. By the early 1990s users may require as high as 1,000 **transactions** per second due to increased use of such **transaction**-based services as **ATMs**. On-line **transaction** processing (OLTP) relies increasingly on **database** access. SQL makes application programs easy to design, but high-level performance is lacking. In contrast, high-performance DBMSs used with OLTP systems are inflexible and complex. New systems should be based on the **relational database** model using

related tables of data. An additional benefit of the tables is that data may be...

27/5,K/12 (Item 1 from file: 647)
DIALOG(R)File 647:CMP Computer Fulltext
(c) 2004 CMP Media, LLC. All rts. reserv.

01108178 CMP ACCESSION NUMBER: CWK19961028S0016

The object of the game is information

Martin Marshall

COMMUNICATIONSWEEK, 1996, n 635, PGT25

PUBLICATION DATE: 961028

JOURNAL CODE: CWK LANGUAGE: English

RECORD TYPE: Fulltext

SECTION HEADING: Telepath -Technology Platforms - The elements making up
converging networks

WORD COUNT: 1037

TEXT:

Compiling and making sense of all the data associated with the telecommunications infrastructure is getting easier with object-oriented databases.

... A relational database would not have given us that performance."

Northern Telecom uses Gemstone Systems Inc.'s **object database** for its Magellan **ATM** and Intelligent Network switches. "We needed a fast, flexible and reliable development environment, and Gemstone met this...

27/5,K/13 (Item 2 from file: 647)
DIALOG(R)File 647:CMP Computer Fulltext
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01017956 CMP ACCESSION NUMBER: IWK19940704S1056

Control With Message Queuing - Some users may prefer an alternative to TP monitors for managing transactions

Joshua Greenbaum

INFORMATIONWEEK, 1994, n 482, 66

PUBLICATION DATE: 940704

JOURNAL CODE: IWK LANGUAGE: English

RECORD TYPE: Fulltext

SECTION HEADING: Client-Server

WORD COUNT: 522

TEXT:

How many transactions per second does a system really need to handle? How reliable and secure should a transaction-processing system be? If businesses need their client-server transactions to occur no matter what, then those companies may want to examine an emerging technology called message queuing.

... in their intended order.

Proponents of message queuing technology say it can replace two-phase commit, a **transaction** security method used in **relational databases** that requires close coordination between the server **database** and client application systems. Banks, for instance, might use two-phase commit to protect against thieves who try to withdraw money from the same account at both a teller window and an **ATM** machine. According to Yeamans, many banks are piloting message queuing technology to cut **ATM** monitoring costs.

Message queuing also simplifies the distributed programming process. Server programmers need only enter a symbol...

27/5,K/17 (Item 2 from file: 696)
DIALOG(R)File 696:DIALOG Telecom. Newsletters
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00638252

Global: Subscriber Billing

Telecommunications Development Report

October 31, 1997 DOCUMENT TYPE: NEWSLETTER

PUBLISHER: PYRAMID RESEARCH

LANGUAGE: ENGLISH

WORD COUNT: 6791

RECORD TYPE: FULLTEXT

Revenue Opportunities in the Back Offices of Emerging Region Opcos

(c) 1997 The Economist Intelligence Unit Limited

COMPANY NAME(S): Advanced Information Services ; Alcatel ; Alltel ; American Management Systems ; Andersen Consulting Computer Sciences Corp ; Atmosphaera ; Aurec ; AT&T ; Bell Canada ; Billing Markets ; BHA Computer ; BSW Data ; Cellular ; Comcast ; Communications Group ; Communications Systems ; Computer Generation Inc ; Coral Systems ; CIG ; CSC Intelicom ; Davies/Salmat Corp ; Dragon Systems ; DCS ; Electronic Data Systems ; Entertainment ; Ericsson Hewlett Packard Telecommunications ; Formula Group ; Fujitsu ; Globe Telecom ; GTE Data ; Hewlett Packard ; Hitachi ; Hongkong Telecom ; Industry Group ; Information Services ; Information Systems ; Informix ; Ingres ; Installed LHS Communications ; Integrated Customer Management Systems ; International Billing Services ; International Telecommunication Data Systems ; IBM ; INTEBIS ; Kenan Systems ; Korea Telecom ; Lend Lease ; Lucent Technologies ; LHS Communications ; Mecam ; Mechanical Exchange Call Management ; Microsoft 's Commercial ; Motorola ; Novell ; NCR ; NEC ; NORTEL ; Oracle ; Programator ; PCS ; Sema Group ; Sequent ; Siemens ; State Protection Office ; Steepler ; Stonehouse ; Stratus ; Sumitomo ; Sun Microsystems ; Sybase ; Tandem Computers ; Telecom ; Telecommunication Data ; Telecommunications Business Information Systems ; TeleProcessing Systems ; Telstra ; Unisys Micro ; VSE ; World Bank

TEXT:

...1997

| Company | Product | Vendor Relationships |
|------------------------|--|--|
| ACE*COMM | N*USAGE (data collection) | * Siemens/Newbridge (X.25/frame relay/ ATM billing data collection) * Has developed products for resale with AT&T, NEC, CBIS and Motorola. * Has worked...for |
| Telecommunications | (co-developer of (FROST) | FROST); LHS Communications (BSCS billing system); Open Market Inc. (developing Internet transaction applications) |
| Moscom | INFO/MDR; Verabill IS | - |
| Perot Systems | - | * Acquired Commsys (billing provider) in Sept. 1996; Asia joint... |
| ...6000, HP 9000, Sun, | Stratus and PCs. | |
| Alcatel | * HP 9000, RS/6000; also PC-based version. * Oracle RDBMS . | |
| Alltel | * Virtuoso: AS/400. * Virtuoso II: Unix-based client/server with Windows access. * Also provides bill outsourcing... | |

| | |
|---|---|
| ...Management Systems (AMS) | * Mobile2000: IBM, HP, Digital hardware (Unix, AIX, MVS operating systems). * Oracle, Sybase, Informix, DB2 RDBMS . |
| Andersen Consulting | * IBCCS is based on BPP ported to Unix platform. |
| Axiom (formerly Securicor Telesciences) | - |
| Bell Sygma | - |
| Bellcore | - |
| Groupe Bull/Integris | * Company also produces Escala servers. |
| USCS/CableData | * Intelecable: HP RS/6000 and Oracle RDBMS . * CableWorks: produced by CUO, PC-based billing platform utilising IBM OS/2 and Novell networking. * USCS' other... |
| ...billing services. | |
| CAP Gemini Telecoms & Media | * Sun Microsystems. |
| Cincinnati Bell Information Services (CBIS) | * Precedent 2000: Sun Microsystems, Oracle RDBMS . * Advantage: NCR, Oracle RDBMS . * Also provides outsource billing services. |
| Consolidated Communications Systems & Services (CCSS) | - |
| Communications Data | * TeleMAX: AS/400, IBM... |
| ...IBM, (CSC) Intelicom | NCR and Sun Microsystems (supporting various types of Unix, OS/400, VMS and DOS). * RDBMS options include Ingres, DB2, Oracle and Sybase (AIX, SQL, OS/400). |
| CSG Systems | - |
| Daleen Technologies | * Unisys (runs on SQL, supports EDI). * Informix RDBMS and TCP/IP networking. |
| ...platform as 'billing Telecommunications (EHPT) | middleware'. |
| Ernst & Young | * Originally developed for Digital Equipment platform. |
| GTE | * Uses SQL database . |
| Portal Information Network | - |
| IBM ICMS | - |
| IBM ISSC | - |
| International Telecommunication Data System (ITDS) | - |
| Kenan Systems | * Sun, DEC, HP... |
| ...Moscom | - |

| | |
|--|---|
| Perot Systems | - |
| Price Waterhouse Entertainment, Media & Communications Group | - |
| Saville Systems | - |
| Sema Group | * Uses DEC/OpenVMS; Ingres RDBMS . |
| Siemens Nixdorf | - |
| Unisys | - |
| Stonehouse | - |
| Wiztec | * Operates on Digital Equipment hardware (company was formerly DECsys, owned by DEC...from |
| Kenan Systems, which runs | on Unix-based client/server architecture running X/Windows, connected to Sybase RDBMS . * Arbor/BP platform will initially bill for estimated 3 million wire line, and analogue and digital cellular... |
| ...CABS2000 platform for GSM operations. | |
| India | * Implemented ISIS billing system running on HP platform linked with Oracle RDBMS . |
| India | * Billing system based on Shinawatra's domestic system. |
| India Running on HP platform | * Billing system based on Shinawatra's domestic 1996. * linked with Oracle RDBMS . |
| Indonesia | * Installing LHS Communications BSCS platform. The multi-million dollar contract, awarded June 1997, will support over... |
| ...language and market. | * Configured to run on IBM RS/6000 Unix running AIX, linked to Oracle v7 RDBMS . |
| Korea | * Will use Intelecable platform to supply cable TV bill outsourcing services. * Expects to integrate paging, interactive... |
| ...Malaysia | * ISIS billing system installed to support DCS 1800 services. * Running on HP hardware linked with Oracle RDBMS . |
| Malaysia | * Licensed billing platform from Kenan Systems. |
| New Zealand | * Supplied integrated ICMS billing platform. |
| Philippines | * Purchased ICMS... |
| ...representatives/750,000 subscribers. | * Systems configured to run on Siemens Nixdorf RM 600 servers connected to Informix RDBMS . |
| Philippines | * AIS provides outsourcing billing for Piltel using data centre based on Virtuoso platform. * Data centre inaugurated... |
| ...announced | April 1997, installation completed end of May. * |

Billing platform runs on Unix server with interface to **RDBMS** .

Thailand * Platform bills paging, AMPS cellular and DCS 1800 cellular services.

Thailand * Uses Digital Equipment hardware.

Vietnam...000 subscribers, announced Feb. 1995. * Platform runs on IBM-based system: MVS/ESA mainframe-based architecture; DB2 **data base** and CICS.

Panama * Turnkey contract in 1995 for digital switching, transmission, management and billing system.

Puerto Rico...
...000 subscribers as of March 1997. * Platform is a Unix-based client/server architecture connected to Sybase **RDBMS** .

Poland * Contract initially awarded in 1994.

Russia * Billing system installed in a near-\$1 million contract through...running on OSF/1 (some have been upgraded to Sequent NUMA-Q hardware) and Oracle v7.1 **RDBMS** to implement Sofrecom's Giraffe 2G X subscriber management software.

Tanzania * Turnkey installation awarded in 1995, included...in different locations at the same time.

There are also more advanced applications for which the billing **database** can be put to use. For example, a " **data warehouse** " of storing old billing data can be maintained, to be used as evidence of **transactions** in case of disagreements with customers. This old billing information can then be analysed using software tools...March 1996, when the State Protection Office in Poland launched an investigation due to suspicions that a **database** of customer information was "leaked" to a foreign company, jeopardising national and industrial secrets. The two parties...

...since 1992: EDS purportedly shipped Centertel billing information to its U.S. headquarters, to use as a **database** sample through which to develop software applications for the provider. The incident was a temporary obstacle. In...